COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Southwest Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Webb Furniture Enterprises, Inc.
Plant #1
307 South Railroad Avenue, Galax, Virginia
Permit No. SWRO10332

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Webb Furniture Enterprises, Inc. has applied for a renewal of its Title V Operating Permit for its furniture manufacturing facility in Galax, Virginia. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact:_____ Date:
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Air Permit Manager:_____ Date:
Rob Feagins

Regional Director:_____ Date:
Dallas R. Sizemore

FACILITY INFORMATION

Permittee
Webb Furniture Enterprises, Inc.
P.O. Box 1277
Galax, VA 24333

Facility
Plant #1
307 South Railroad Avenue
Galax, Virginia

AIRS ID No. 51-640-0036

SOURCE DESCRIPTION

SIC Code: 2511 – Steam generation, lumber drying, woodworking operations, gluing operations, finishing operations, and other processes for manufacturing wood household furniture. Not all components undergo all process steps. Fuel burning equipment includes a 400 Hp Bigelow wood/coal-fired boiler (can be fired at 2x rating). It is equipped with an automatic modulating air/fuel system for woodwaste firing and a spreader stoker for coal firing with underfire combustion air. Scrap lumber serves as boiler fuel after processing by a hammer mill hog, with the material being transferred to a silo by a closed loop pneumatic conveying system. Four lumber drying kilns use steam heat to reduce moisture content in lumber. Webb uses a variety of standard woodworking machines which are connected to pneumatic conveying systems for dust and chip removal. These are in turn served by eight baghouses to control particulate emissions. The company's woodworking equipment has the capacity to process 66,000 board feet of lumber per day. Edge wood strips are glued using either clamp carrier or high-frequency gluer. Glue is applied to panels by roller spreader and veneers are applied in a hydraulic press and are cured with steam or ambient air. Furniture finishing equipment includes twelve dry filter back spray booths, five ovens and a flash tunnel. Equipment also includes a reverse roll coater, a single roll printer, an enclosed vacuum coater and a drying oven for water-based applications. Compliant coating materials will be used to meet 40 CFR 63 Subpart JJ requirements limiting emissions of volatile hazardous air pollutants (VHAPs).

The facility is a Title V major source of volatile organic compounds (VOC). This source is located in an attainment area for all pollutants, and is a PSD minor source. The facility was previously permitted under minor NSR permits dated April 17, 1980 and March 22, 1999 (as amended June 19, 2000 and January 6, 2005). A minor modification was issued for the current Title V permit on August 8, 2008, to incorporate a minor revision to the CAM plan for a change in the pressure drop range for baghouse df-7, due to reduced air handling load.

COMPLIANCE STATUS

The last Full Compliance Evaluation was conducted at the facility on February 17, 2010, and included an assessment of the number of spray booths at the site. The December 2009 Title V renewal application indicates the presence of 13 spray booths, while the current Title V and minor NSR permits referenced 12 spray booths at the facility. The Compliance Evaluation report notes that only 12 spray booths were onsite and all previously noted deficiencies were corrected.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following :

Emission Unit ID	Emission Unit Description & Construction Date (If known)	Capacity/ Size	Pollution Control Device (PCD)	PCD ID	Stack ID	Pollutant Controlled
Fuel Burning Equipment	Subject to 9 VAC 5 Chapter 40 (Existing)					
B1-A	Bigelow wood-fired boiler	39,200,000 Btu/hr	Barron multicyclone	Bm-1	Bs-1	PM (Particulate matter)
Fuel Burning Equipment	Subject to 9 VAC 5 Chapter 50 (New or Modified)					
B-1B B-1C	Bigelow woodwaste/coal-firing	39,200,000 Btu/hr	Barron multicyclone	Bm-1	Bs-1	PM
B-2	Wickes distillate oil-fired boiler	17,250,000 Btu/hr	None		Bs-2	
Woodworking Equipment	Subject to 9 VAC 5 Chapter 40 (Existing)					
WO (bh-1) (bh-2) (bh-3)	Woodworking (rough end and rough machine for wood furniture parts)	66,000 board feet/day total for all wood-working operations	Moldow baghouses (vent internally)	Df-1 Df-2 Df-3	Bf-1 Bf-2 Bf-3	PM
WO (bh-4) (bh-5)	Woodworking (rough end and rough machine for wood furniture parts)	66,000 board feet/day total for all wood-working operations	Carter-Day baghouses (124RF10 and 376RF10)	Df-4 Df-5	Bf-4 Bf-5	PM
WO (bh-6)	Small woodworking equipment	66,000 board feet/day total for all wood-working operations	Torit-Day baghouse (156RF10)	Df-6	Bf-6	PM

Emission Unit ID	Emission Unit Description & Construction Date (If known)	Capacity/ Size	Pollution Control Device (PCD)	PCD ID	Stack ID	Pollutant Controlled
Woodworking Equipment	Subject to 9 VAC 5 Chapter 50 (New or Modified)					
WO (bh-7) (bh-8)	Woodworking (Two CNC routers)		Donaldson (156 RFW-AW) and Torit 72RF10 baghouses	Df-7 Df-8	Bf-7 Bf-8	PM
Furniture Finishing Equipment	Subject to 9 VAC 5 Chapter 50 (New or Modified)					
FR (sb-1) FR (sb-2)	Dry filter back spray booth Dry filter back spray booth	33,250 acfm 28,876 acfm	Filter Filter	Sf-1 Sf-2	Sb-1 Sb-2	PM PM
FR (sb-3) FR (sb-4) FR (sb-5)	Dry filter back spray booth Dry filter back spray booth Dry filter back spray booth	28,876 acfm 33,250 acfm 35,500 acfm	Filter Filter Filter	Sf-3 Sf-4 Sf-5	Sb-3 Sb-4 Sb-5	PM PM PM
FR (sb-6) FR (sb-7) FR (sb-8)	Dry filter back spray booth Dry filter back spray booth Dry filter back spray booth	36,000 acfm 28,876 acfm 24,500 acfm	Filter Filter Filter	Sf-6 Sf-7 Sf-8	Sb-6 Sb-7 Sb-8	PM PM PM
FR (sb-9) FR (sb-10) FR (sb-11) FR (sb-12)	Dry filter back spray booth Dry filter back spray booth Dry filter back spray booth Dry filter back spray booth	28,876 acfm 28,876 acfm 37,626 acfm 13,125 acfm	Filter Filter Filter Filter	Sf-9 Sf-10 Sf-11 Sf-12	Sb-9 Sb-10 Sb-11 Sb-12	PM PM PM PM
FR (ov-1) FR (ov-2) FR (ov-3)	Oven Oven Oven	1500 acfm 3000 acfm 3000 acfm	None None None		Ov-1 Ov-2 Ov-3	
FR (ov-4) FR (ov-5) FR (ft-1)	Oven Oven Flash Tunnel	3000 acfm 4500 acfm 14,000 acfm	None None None		Ov-4 Ov-5 Ft-1	
FR (rc-1) FR (pr-1) FR (vc-1)	Reverse roll coater, single roll Printer, enclosed vacuum coater and drying oven (all aqueous)	0.25 gph 1.0 Gph 1.7 gph				
Wood Drying Equipment	Subject to 9 VAC 5 Chapter 40 (Existing)					
LD (dk-1) (dk-2)	Lumber drying (hard/softwood) Coe Manufacturing	46,800 bd. ft. x 2 6,832,800 bd. ft./yr	None			

Emission Unit ID	Emission Unit Description & Construction Date (If known)	Capacity/ Size	Pollution Control Device (PCD)	PCD ID	Stack ID	Pollutant Controlled
LD (dk-3)	Lumber drying (hard/softwood) Southeastern Installation, Inc.	90,000 bd.ft. 6,570,000 bd. ft./yr.	None			
LD (dk-4)	Lumber drying (hard/softwood) Southeastern Installation, Inc.	54,200 bd. ft. 3,956,600 bd. ft./yr	None			
Furniture Gluing Equipment		Subject to 9 VAC 5 Chapter 40 (Existing)				
GO	Gluing operation	25,030 ft^2/hr total	None			

EMISSIONS INVENTORY

Emissions for calendar year 2008 are summarized in the following tables.

Actual Emissions

	Criteria Pollutant Emissions in Tons/Year				
Emission Unit	VOC	CO	SO_2	PM_{10}	NO_x
Facility Total	0.106	0.4356	0.5093	0.734	0.4883

1/1/2004 - 12/31/2008 Facility Hazardous Air Pollutant Emissions

Pollutant	Hazardous Air Pollutant Emissions in Tons
Xylenes	23.5
Toluene	11.4
Ethyl benzene	7.8
Total HAPs	48.0

EMISSION UNIT APPLICABLE REQUIREMENTS – Fuel Burning Conditions for the Bigelow Boiler (B-1)

Limitations

Facility limitations from the NSR permit issued April 17, 1980, (as amended June 19, 2000 and January 6, 2005 and including additional current Title V requirements).

18. The approved fuels for the Bigelow/HRT wood-fired boiler (B-1) are wood and coal, including wood waste materials generated from the manufacturing processes of sources with SIC 2511. The permitted facility may switch from one of these approved fuels to another approved fuel without notification. A change to a fuel not listed above may require a permit modification.
(9 VAC 5-80-10)

19. Particulate emissions from the Bigelow/HRT boiler (B-1) shall be controlled by a Barron Industries 30 tube BASE III 9K15-0606 ST Type B multicyclone, or equivalent, with a rated control efficiency of 87 percent. The multicyclone shall be provided with adequate access for inspection. An annual inspection shall be conducted on the multicyclone by the permittee to insure structural integrity.
(9 VAC 5-80-10 H and 9 VAC 5-50-260)

20. Emissions from the operation of the Bigelow/HRT wood/coal-fired boiler (B-1) shall not exceed the limits specified below:

Particulate Matter	12.7 lbs/hr	53.0 tons/yr
Sulfur Dioxide	34.2 lbs/hr	143.6 tons/yr
Nitrogen Oxides (as NO_2)	22.5 lbs/hr	94.5 tons/yr
Volatile Organic Compounds (VOC)	1.5 lbs/hr	6.3 tons/yr

(9 VAC 5-50-260 and 9 VAC 5-50-180)

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-50-80, Standard for Visible Emissions – 20% opacity except for one 6-minute period not to exceed 30%.

Monitoring

The facility is a major source subject to Title V permitting and therefore subject to 40 CFR Part

64 - Compliance Assurance Monitoring (CAM). An emission unit is subject to CAM if it meets all of the following criteria on a pollutant-by-pollutant basis:

a. Emits or has the potential to emit uncontrolled quantities of one or more regulated air pollutants at or above major source levels,

b. Is subject to one or more emissions limitations for the requlated air pollutants for which it is major before control, and

c. Uses an add-on control device to achieve compliance with the emissions limitations.

The Bigelow boiler is an emissions unit that meets all of the above criteria as follows:

a. It has the potential to emit particulate matter (uncontrolled) above major source levels.

b. The boiler is subject to emissions limits for particulate matter of 12.7 lb/hr and 53.0 tons per year from the NSR permit dated April 17, 1980 (as amended June 19, 2000 and January 6, 2005).

c. It uses a multicyclone to comply with the limit on particulate matter.

The permittee has installed a Magnahelic gauge as a pressure drop indicator for the multicyclone. The permittee will be required to monitor, operate, calibrate and maintain the device according to the CAM plan in the following table:

Monitoring, Frequency, Records	**Performance Criteria**	**Indicator Range, Averaging Period**
Monitor multicyclone pressure drop readings daily. Record results daily.	Observe deviation from normal pressure drop.	Instantaneous observation of pressure drop by Magnahelic gauge or equivalent ≤ 10% below established range.
External cyclone inspections, when pressure drop is outside the indicator range. Internal cyclone and ductwork inspection as required to alleviate any flow problems.	Inspections by a qualified employee with at least one year of experience in maintenance of mechanical equipment.	As noted above.

In conjunction, Title V periodic monitoring requirements are included from the current permit, which include a performance test for particulate matter during each five year permit term, if the actual heat input exceeds 50 percent of the 39,200,000 Btu/hr capacity rating. A requirement to

also monitor nitrogen oxides has been added with this Title V permit renewal for the Bigelow boiler. The tests shall be performed each permit term within 120 days of exceeding the threshold noted above.

The periodic monitoring also includes weekly visible emissions checks. If visible emissions are present during any of the observations, a six-minute visible emission evalutation must be performed in accordance with 40 CFR 60, Appendix A, Method 9. If any observation exceeds 20% opacity during this six-minute period, then a one-hour Method 9 VEE is required. A Method 9 evaluation will not be required if the emissions condition is corrected expeditiously, the emissions unit is operating at normal conditions, and the cause and corrective measures taken are recorded. This satisfies the periodic monitoring requirement for the visible emission limitation included in the permit.

Recordkeeping

Recordkeeping requirements are associated with the CAM and periodic monitoring noted above. These requirements include consumption of wood and coal fuel, annual hours of operation of the Bigelow boiler, pollutant-specific emission factors and equations to determine compliance with emission limits, heat content of the wood used as fuel, and records of pressure drop readings. Required records for the visible emissions checks include the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer. Excursions and exceedances with the CAM monitoring must be recorded per 40 CFR 64.7, including actions to return operations to within the indicator range for the control device, or below the applicable emission limitation, as applicable. An excursion is a departure from the indicator range specified, while an exceedance is a violation of an emissions limit.

Testing

The permit requires a source test for particulate matter as noted under monitoring requirements above. The test shall be performed in accordance with 40 CFR 60, Appendix A, Method 5. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

Performance test results must be reported to the DEQ Southwest Regional Office within 60 days after test completion. Reporting also includes annual compliance certification requirements, semiannual reports, and any required malfunction reporting as specified in the general conditions section of the permit.

EMISSION UNIT APPLICABLE REQUIREMENTS – Fuel Burning Conditions for the Wickes Boiler (B-2)

Limitations

Facility limitations from the NSR permit issued March 22, 1999, (as amended June 19, 2000 and January 6, 2005 and including additional current Title V requirements).

12. The Wickes boiler (B-2) shall consume no more than 600,000 gallons of distillate oil per year, calculated as the sum of each consecutive 12 month period.
(9 VAC 5-170-160)

13. The approved fuel for the Wickes oil-fired boiler is distillate fuel oil. Distillate oil is defined as fuel oil that meets the specifications for fuel oil numbers 1 or 2 under the American Society for Testing and Materials, ASTM D396-78 "Standard Specification for Fuel Oils". A change to a fuel not listed above may require a permit modification.
(9 VAC 5-80-10 and 40 CFR 60.41c)

14. Emissions from the operation of the Wickes distillate oil-fired boiler (B-2) shall not exceed the limits specified below:

Particulate Matter	0.2 lbs/hr	0.6 tons/yr
Sulfur Dioxide	8.8 lbs/hr	21.5 tons/yr
Nitrogen Oxides (as NO_2)	2.5 lbs/hr	6.0 tons/yr
Carbon Monoxide	0.6 lbs/hr	1.5 tons/yr

(9 VAC 5-50-260 and 9 VAC 5-50-180)

15. Visible emissions from the Wickes boiler (B-2) stack shall not exceed 10 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 20 percent opacity, as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9 VAC 5-170-160 and 9 VAC 5-50-20)

16. The maximum sulfur content of the distillate oil to be burned in the Wickes boiler shall not exceed 0.5 percent by weight per shipment. The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:

a. The name of the fuel supplier,
b. The date on which the oil was received,
c. The volume of distillate oil delivered in the shipment,
d. A statement that the oil complies with the American Society for Testing and Materials specifications for fuel oil numbers 1 and 2, and
e. An indication that the sulfur content of the distillate oil does not exceed 0.5 percent by weight.

(9 VAC 5-170-160, 9 VAC 5-50-410, 40 CFR 60.48c(f)(1) and 40 CFR 60.42c(h)(1))

17. Except as specified in this permit, the Wickes boiler is to be operated in compliance with Federal emissions requirements under 40 CFR 60, Subpart Dc.
(9 VAC 5-80-10 and 40 CFR 60.41c)

Monitoring/Recordkeeping

Facility monitoring and recordkeeping requirements are included below from Condition 25 of the NSR permit issued March 22, 1999 (as amended June 19, 2000 and January 6, 2005 and including additional current Title V requirements).

25. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Southwest Regional Office. These records shall include, but are not limited to:

a. Amount of distillate oil combusted in the Wickes oil-fired boiler on a daily basis. Annual fuel consumption is calculated as the sum of each consecutive 12 month period,
b. All fuel supplier certifications, and
c. Annual hours of operation of the Wickes boiler, and annual emissions calculations for the purpose of compliance certification with the terms of this permit, including hourly and annual emissions limitations. Hourly emissions shall be calculated by dividing the annual emissions calculated monthly as the sum of each consecutive 12 month period, by the annual hours of operation appropriate for the same period.

These records shall be available for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-50-50)

Testing

Source testing is not required. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

Facility reporting requirements are included below from Condition 26 of the NSR permit issued March 22, 1999, (as amended June 19, 2000 and January 6, 2005).

26. The permittee shall submit fuel quality reports to the Director, Southwest Regional ffice within 30 days after the end of each calendar quarter. If no shipments of distillate oil were received during the calendar quarter, the quarterly report shall consist of the dates included in the calendar quarter and a statement that no oil was received during the calendar quarter. If distillate oil was received during the calendar quarter the reports shall include:

a. The dates included in the calendar quarter,
b. A copy of all fuel supplier certifications for all shipments of distillate oil received during the calendar quarter or a quarterly summary from each fuel supplier that includes the information specified in Condition 34 for each shipment of distillate oil, and
c. A signed statement from the owner or operator of the facility that the fuel supplier certifications or summaries of fuel supplier cerfifications represent all of the distillate oil burned or received at the facility.

(9 VAC 5-170-160, 9 VAC 5-50-50 and 40 CFR 60.48c(e)(11))

Reporting also to include annual compliance certification requirements, semiannual reports, and any required malfunction reporting as specified in the general conditions section of the permit.

EMISSION UNIT APPLICABLE REQUIREMENTS - Woodworking Equipment

Limitations

Facility limitations from the NSR permit issued March 22, 1999, (as amended June 19, 2000 and January 6, 2005 and including additional current Title V requirements).

21. Visible emissions from the baghouse controlling the emissions from the CNC router and any baghouse controlling the transfer of any collected material from that equipment shall not exceed five (5) percent opacity.
(9 VAC 5-170-160)

22. Particulate emissions from the CNC router shall be controlled by baghouse. The baghouse shall be provided with adequate access for inspection. The baghouse shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times. (9 VAC 5-170-160)

23. All subsequent transfer of the collected material from the CNC router shall be controlled by a baghouse and/or a completely enclosed transfer system. (9 VAC 5-170-160)

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-40-2270 A, Standard for Particulate Matter (Emission Standards for Woodworking Operations) – Adequate duct work and properly designed collectors shall be provided for particulate emissions caused by any woodworking operations.

9 VAC 5-40-2270 B, Standard for Particulate Matter (Emission Standards for Woodworking Operations) – Particulate emissions shall not exceed 0.05 grains per standard cubic feet of exhaust gas.

9 VAC 5-40-2280, Standard for Visible Emissions – 20% opacity except for one 6-minute period not to exceed 60%. (Baghouses df-4 through df-6)

Monitoring

The facility is a major source subject to Title V permitting and therefore subject to 40 CFR Part 64 - Compliance Assurance Monitoring (CAM). An emission unit is subject to CAM if it meets all of the following criteria on a pollutant-by-pollutant basis:

a. Emits or has the potential to emit uncontrolled quantities of one or more regulated air pollutants at or above major source levels,

b. Is subject to one or more emissions limitations for the regulated air pollutants for which it is major before control, and

c. Uses an add-on control device to achieve compliance with the emissions limitations.

The woodworking operations comprise emissions units that meet the above criteria as follows:

a. They can emit uncontrolled quantities of particulate matter above major source levels, (however df-1, df-2 and df-3 vent internally).

b. Baghouses df-1 through df-6 and df-8, for existing sources, are subject to a 0.05 gr/dscf particulate emissions standard.

c. Fabric filter baghouses are used to comply with the limit on particulate matter.

The permittee has installed pressure drop indicators for the baghouses. The permittee will be required to monitor, operate, calibrate and maintain the device according to the CAM plan in the following table:

Monitoring, Frequency, Records	**Performance Criteria**	**Indicator Range, Averaging Period**
Daily visible emissions checks. Results recorded daily, noting date, time, name of emission unit, observation results, emissions requirement and name of the observer.	Check for presence of visible emissions.	Instantaneous observation of visible emission.
Six-minute Method 9 visible emissions evaluations when triggered by observation of visible emissions. An 18 minute evaluation shall be performed when the visible emissions limit is exceeded in the six-minute evaluation.	Conduct visible emissions evaluation in accordance with 40 CFR60, Appendix A, Method 9. Performed by certified observer.	Opacity is less than or equal to 20% for df-4, df-5, and df-6. Opacity is less than or equal to 5% for df-7 and df-8.
External bagfilter inspections weekly. Monitor pressure drop indicator and record results weekly.	External bagfilter inspection by a qualified employee with at least one year of experience in maintenance of mechanical equipment.	Indicator range consists of pressure drops above 1" water column and below 6" water column, except df-7, which is 0.3 and 5 inches, respectively.
Internal bagfilter inspections annually, or when pressure drop is outside of the indicator range.	Internal bagfilter inspection by a qualified employee with at least one year of experience in maintenance of mechanical equipment.	Air flow restrictions affecting proper operation of baghouse.

Visible emissions checks are required on a daily basis. If visible emissions are present during any of the observations, a six-minute visible emission evalutation must be performed in

accordance with 40 CFR 60, Appendix A, Method 9. If any observation exceeds the visible emissions limit for a baghouse during this six-minute period, then an 18 minute Method 9 VEE is required. The 18 minute evaluation is not be required if the emissions condition is corrected expeditiously, and a follow-up six-minute VEE indicates compliance with the limit.

Recordkeeping

Recordkeeping requirements are associated with the CAM and periodic monitoring noted above. Required records for the visible emissions checks include the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer. Excursions and exceedances with the CAM monitoring must be recorded per 40 CFR 64.7, including actions to return operations to within the indicator range for the control device, or below the applicable emission limitation, as applicable. An excursion is a departure from the indicator range specified, while an exceedance is a violation of an emissions limit.

Testing

Source testing is not required. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

Reporting to include annual compliance certification requirements, semiannual reports, and any required malfunction reporting as specified in the general conditions section of the permit.

EMISSION UNIT APPLICABLE REQUIREMENTS – Wood Drying Kilns

Limitations

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

> 9 VAC 5-40-80, Standard for Visible Emissions – 20% opacity except for one 6-minute period not to exceed 60%.

Monitoring

Visible emissions checks shall be performed monthly on the kilns, for not less than two months, during periods of normal daily operations. Checks may be discontinued after two months if no visible emissions are observed. If visible emissions are present during any of the observations, a

six-minute visible emission evaluation must be performed in accordance with 40 CFR 60, Appendix A, Method 9. If any observation exceeds 20% opacity during this six-minute period, then an 18 minute Method 9 VEE is required. A Method 9 evaluation will not be required if the emissions condition is corrected expeditiously, and compliance is confirmed by a six or 18 minute VEE following the corrective action. This satisfies the periodic monitoring requirement for the visible emission limitation included in the permit.

Recordkeeping

Required records for the visible emissions checks include the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer.

Testing

Source testing is not required. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

Reporting to include annual compliance certification requirements, semiannual reports, and any required malfunction reporting as specified in the general conditions section of the permit.

EMISSION UNIT APPLICABLE REQUIREMENTS – Furniture Finishing Operations

Facility limitations from the NSR permit issued March 22, 1999, (as amended June 19, 2000 and January 6, 2005).

Limitations

3. Particulate emissions from the spray booths shall be controlled by filters and airless or high volume low pressure (hvlp) equipment to control overspray. The filters shall be provided with adequate access for inspection.
(9 VAC 5-80-10 H and 9 VAC 5-50-260)

4. Volatile organic compound emissions from the spray booths shall be minimized by the use of airless spray nozzles, or HVLP spray nozzles.
(9 VAC 5-170-160)

5. The total VOC emissions from the sap/equalizer stains, general stains, wipe stains,

shade stains, spatter stains, and spray pads for the spray booths shall not exceed 129.72 tons per year, calculated monthly as the sum of each consecutive 12 month period.
(9 VAC 5-170-160 and 9 VAC 5-80-1180)

6. The total VOC emissions from sealer from the spray booths shall not exceed 60.19 tons per year, calculated monthly as the sum of each consecutive 12 month period.
(9 VAC 5-170-160 and 9 VAC 5-80-1180)

7. The total VOC emissions from lacquer from the spray booths shall not exceed 104.04 tons per year, calculated monthly as the sum of each consecutive 12 month period.
(9 VAC 5-170-160 and 9 VAC 5-80-1180)

8. The total VOC emissions from lacquer thinner from the spray booths shall not exceed 35.53 tons per year, calculated monthly as the sum of each consecutive 12 month period. Lacquer thinner shall not contain hazardous air pollutants.
(9 VAC 5-170-160 and 9 VAC 5-8-1180)

9. Annual VOC emissions of water base ink, fill and stains used at the vacuum coater, reverse roll coater, and printer shall not exceed 0.17 tons per year, calculated monthly as the sum of each consecutive 12 month period.
(9 VAC 5-170-160 and 9 VAC 5-80-1180)

10. Emissions from the operation of the dry filter back spray booths shall not exceed the limits specified below:

Particulate Matter/PM-10	25.2 lb/hr	19.5 tons/yr
Volatile Organic Compounds	449.7 lb/hr	329.7 tons/yr

Compliance with these limits shall be determined by material balance as stated in conditions 5 through 9, and conditions 11 and 25 of this permit.
(9 VAC 5-50-260 and 9 VAC 5-60-300)

11. Visible emissions from the dry filter back spray booth exhausts shall not exceed five (5) percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9 VAC 5-170-160 and 9 VAC 5-50-20)

Monitoring/Recordkeeping

Facility monitoring and recordkeeping requirements are included below from Condition 25 of the NSR permit issued March 22, 1999 (as amended June 19, 2000 and January 6, 2005).

25. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Southwest Regional Office. These records shall include, but are not limited to:

a. A monthly and annual material balance including the throughput and emissions of particulate matter and volatile organic compounds for finishing operations. Hourly emissions shall be calculated by dividing the total daily throughput by the corresponding hours of booth operation. Annual throughput and emissions shall be calculated monthly as the sum of each consecutive 12 month period.
b. The number of hours of operation of the dry filter back spray booths, calculated daily.
c. Annual VOC emissions of sap/equalizer stains, stains, wipe stains, shade stains, sealer, spray pad, lacquer, spatter, thinner, water base ink, water base fill and water base stains, calculated daily. The permittee shall retain MSDS records to comply with VOC emission limits as stated in Conditions 5 through 9 of this permit.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-50-50)

The periodic monitoring also includes daily visible emissions checks. If visible emissions are present during any of the observations, a six-minute visible emission evaluation must be performed in accordance with 40 CFR 60, Appendix A, Method 9. If any observation exceeds 5% opacity during this six-minute period, then a one-hour Method 9 VEE is required. A Method 9 evaluation will not be required if the emissions condition is corrected expeditiously, the emissions unit is operating at normal conditions, and the cause and corrective measures taken are recorded. This satisfies the periodic monitoring requirement for the visible emission limitation included in the permit.

Recordkeeping requirements are associated with the periodic monitoring noted above. Retention of the records required for condition 34 above may be necessary for ten (10) years for the purpose of emissions netting, banking, trading and offsets. Required records for the visible emissions checks include the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer.

Testing

Source testing is not required. The Department and EPA have authority to require testing not included in this permit, if necessary to determine compliance with an emission limit or standard.

Reporting

Reporting to include annual compliance certification requirements, semiannual reports, and any required malfunction reporting as specified in the general conditions section of the permit.

EMISSION UNIT APPLICABLE REQUIREMENTS – Gluing Operations

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

> 9 VAC 5-40-260, Standard for Particulate Matter – Process Weight Rate Table
> Emissions from general processes are not to exceed corresponding quantities given by the formula, $E = (4.10)P^{0.67}$.
>
> Where: E = emission rate in lb/hr, and
> P = process weight rate in tons/hr
>
> Particulate emissions from the existing gluing operations result from the glue room veneer press. The capacity of this equipment is constrained by the limiting capacity of the woodworking equipment of 66,000 board feet per day. This value can be multiplied by an average weight of 3.5 pounds per board foot, to yield a process weight rate of 4.81 tons/hr to substitute in the equation above. Accordingly, the maximum allowed particulate emission rate is given by:
>
> $E = (4.10)(4.81)^{0.67} = 11.7$ lb/hr

Monitoring/Recordkeeping

The particulate matter emission limit will be evaluated on the basis of process throughputs, emissions calculations and monthly recordkeeping, with annual emissions and throughputs calculated as the sum of each consecutive 12 month period. This includes the annual throughput of wood in square feet through the glue room veneer press and annual hours of operation of the press. The veneer press itself is rated at 7000 ft^2 of surface per hour. Table 10.5-4 of EPA's AP-42 emission factor compilation indicates a factor of 0.2 lb of particulate per 1000 ft^2 of panel going through a plywood veneer press. The rated capacity can then be used to calculate the worst case hourly emissions in the following manner:

(7000 ft^2/hr)(0.2 lb/1000 ft^2) = 1.4 lb/hr

This is significantly less than the limit of 11.7 lb/hr, therefore records of emissions calculations are not required.

Testing

Source testing is not required. The Department and EPA have authority to require testing not included in this permit, if necessary to determine compliance with an emission limit or standard.

Reporting

Reporting to include annual compliance certification requirements, semiannual reports, and any required malfunction reporting as specified in the general conditions section of the permit.

EMISSION UNIT APPLICABLE REQUIREMENTS – Facility-Wide Requirements

Limitations

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

> 9 VAC 5-50-90, EPA NESHAPs – The company is subject to the 40 CFR 63 Subpart JJ, National Emission Standards for Wood Furniture Manufacturing Operations (Wood Furniture MACT). All limitations from the Wood Furniture MACT have been included in the permit. The General Provisions of 40 CFR 63 Subpart A also apply to the source. Any applicable limitations from the general provisions are also included in the permit.
>
> The kilns at the facility are considered affected sources according to 40 CFR Subpart DDDD (§63.2231(a)), National Emissions Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products. The primary applicable requirement involves the initial notification. No other reports are required for this type source. This MACT will also be cited as technically applicable.

Monitoring

The Wood Furniture MACT contains requirements for continuous compliance, including monthly and/or daily recordkeeping depending on the method of compliance. These requirements have been incorporated in the permit. The Wood Furniture MACT contains adequate monitoring to meet the periodic monitoring requirements, so no additional monitoring has been incorporated into the Title V permit. The company has elected to demonstrate compliance by using only those coatings which meet MACT requirements.

Recordkeeping

The Wood Furniture MACT contains requirements for recordkeeping, including maintenance of certified product data sheets for each material used and all calculations used to demonstrate continuous compliance. No additional recordkeeping has been included in the Title V permit.

Testing

The permit does not require source tests. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

The Wood Furniture MACT requires that a source demonstrate continuous compliance semiannually. The company requested that the reporting timeframes and submission dates be the same for the MACT semiannual reporting as for the semiannual reporting required by the general conditions of the Title V permit. Virginia has appropriate delegated authority per 40 CFR 63.9(i) and 63.10(a)(5) to alter submittal dates and reporting and recordkeeping timeframes. The Title V permit now requires the submittal of the semiannual MACT reports by March 1 and September 1, covering the periods from January 1 to June 30 and July 1 to December 31, respectively.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

Comments on General Conditions

Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §§2.1-20.01:2 and §§10.1-1185 of the *Code of Virginia,* and the "Department of Environmental Quality Agency Policy Statement NO. 3-2001".

Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excesses emissions reporting within 4 hours. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to this section including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. This facility is subject to 9 VAC 5-20-180. The report must be made within 4 daytime business hours of the malfunction.

Annual Compliance Certification Report

This condition incorporates EPA's policy directive in March 2010 that the annual compliance certification report be submitted electronically.

Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in section 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on General Condition F.

FUTURE APPLICABLE REQUIREMENTS

Emission units B-1 and B-2 will be subject to 40 CFR Part 63, Subpart DDDDD (Industrial/Commercial Institutional Boilers and Process Heater NESHAP (Boiler MACT)), when promulgated, unless the permittee obtains federally enforceable limits on its facility-wide emissions of hazardous air pollutants (HAPs) to below major-source thresholds prior to the first substantive compliance date of the Boiler MACT.

INAPPLICABLE REQUIREMENTS

Citation	Title of Citation	Description of Applicability
40 CFR Part 60, Section 60.40c	Subpart Dc – Stds. of Performance for Small Industrial-Commercial-Institutional Steam Generating Unit	**Not applicable –** To Bigelow boiler as it was constructed prior to June 9, 1989. Subpart is applicable to Wickes boiler.

The startup, shutdown, and malfunction opacity exclusion listed in 9 VAC 5-40-20 A 4 cannot be included in any Title V permit. This portion of the regulation is not part of the federally approved state implementation plan. The opacity standard applies to existing sources at all times including startup, shutdown, and malfunction. Opacity exceedances during malfunction can be affirmatively defended provided all requirements of the affirmative defense section of this permit

are met. Opacity exceedances during startup and shutdown will be reviewed with enforcement discretion using the requirements of 9 VAC 5-40-20 E, which state that "At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility, including associated air pollution control equipment, in a manner consistent with air pollution control practices for minimizing emissions."

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation[1] (9 VAC_)	Pollutant Emitted (5-80-720 B.)	Rated Capacity (5-80-720 C.)
N/A	3.31 ft^2 parts washer		VOC	
N/A	0.96 MMBtu/hr diesel engine for emergency fire pump	9 VAC 5-80-720 A		

[1]The citation criteria for insignificant activities are as follows:
9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application
9 VAC 5-80-720 B - Insignificant due to emission levels
9 VAC 5-80-720 C - Insignificant due to size or production rate

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

The draft permit was placed on public notice in the The Gazette on June 28, 2010, and the comment period extended until July 28, 2010. A copy of the public notice was provided to North

Carolina, West Virginia and Tennessee as affected states. All persons on the Title V mailing list were sent a copy of the public notice by e-mail, fax or letter. No comments were received during the public notice period. The draft documents were transmitted to EPA at the start of this period as draft, and subsequently a proposed permit and statement of basis was transmitted to EPA for the 45-day review period. Comments from EPA were received by e-mail from Ms. Gerallyn Duke on August 5, 2010, and were resolved in a telephone conversation with Ms. Duke on August 25, 2010.